of Mollusca new to science, which he proposed to name *Margarita elegantula*, *Aclis Walleri*, and *Nassa? Haliaëti*, besides twelve other species which were new to the British Isles. Of these last, ten are Scandinavian, one is Mediterranean, and the other had hitherto been known only as a Crag fossil. He reserved the description and particulars of these species for a work on British Conchology which he had undertaken. He ascertained that the Gulf Stream never impinges on any part of the coast which he had examined, although the climate was temperate.

The author noticed the occurrence at considerable depths (nearly 80 fathoms) of living Mollusca which usually inhabit the shore or very shallow water, viz. *Lamellaria perspicua*, *Nassa incrassata*, and *Cypræa europæa*, all of them being widely diffused species,—thus apparently illustrating the view entertained by the late Professor Edward Forbes, that those species which have the widest horizontal range have the greatest vertical depth. Judging, however, from the great depth at which he found the fossil shells of some Mollusca (*e. g. Pecten Islandicus* and *Mya truncata* var. *Uddevallensis*) which inhabit much shallower water in the Arctic zone, the author is disposed to believe that the bed of this part of our Northern Sea has sunk since the so-called "glacial" epoch, and that this circumstance may possibly account for the above-mentioned occurrence of sublittoral species at such depths.

With respect to the comparative size of those Mollusca which are common to the seas of the North as well as of the South of Europe, the author referred to an observation made by Mr. Salter, in a recent number of the 'Quarterly Journal of the Geological Society,' that some fossil shells which Mr. Lamont had brought from Spitzbergen were larger than those of the corresponding species in our own mountain limestone; and he remarked that the same rule appears to apply also to marine plants, for he never saw such gigantic fronds of the *Laminaria saccharina*, which fringes all our coast-line, as he did in the voes of North Zetland.

The author concluded by paying a just tribute of respect to the labours of Professors Sars and Lovén, Malm, Mörch, Asbjörnsen, and other Scandinavian naturalists, who were investigating the Mollusca of the Northern seas with a zeal and accuracy worthy of our emulation.

XXXIII.—*On some new Genera and Species of Mollusca from the North of China and Japan.* By Arthur Adams, F.L.S. &c.

Genus Onoba, H. & A. Adams.

Onoba subulina, A. Adams.

O. testa ovato-subulata, alba, rimata, tenui, opaca; spira producta, apice obtuso; anfractibus $4\frac{1}{2}$, convexiusculis, transversim striatis, striis creberrimis, suturis obliquis impressis; apertura oblongo-

ovata, postice acuminata, antice rotundata; labio in medio subflexuoso; peritremate vix continuo; labro margine acuto, recto.

Hab. Gulf of Pe-chili; 3 fathoms.

This is an elegant subulate species, with the whorls finely striated transversely; the inner lip is flexuous in the middle, and the outer lip is thin and simple.

Genus Alvania, Risso.

1. *Alvania badia*, A. Adams.

A. testa ovato-conica, solida; anfractibus 5, duobus superioribus lævibus, cæteris longitudinaliter plicatis, plicis validis, distantibus, transversim liratis, liris prominentibus; anfractu ultimo semiplicato, basi convexa liris validis concentricis ornata, plicis ad peripheriam desinentibus; apertura ovato-acuminata; labro margine subincrassato; pallide fusca aut rufescente, basi et labro antice albidis.

Hab. Kala-hai; Shan-tung.

The colour varies from pale fuscous to reddish brown; and the species may always be known by the base and fore part of the outer lip being whitish.

2. *Alvania scitula*, A. Adams.

A. testa ovato-turbinata, tenui, rimata, luteo-fusca, semiopaca; anfractibus 5, planiusculis, duobus superioribus lævibus, cæteris longitudinaliter plicatis, plicis tenuibus confertis, transversim liratis; anfractu ultimo plicis ad peripheriam obsoletis; apertura acuminato-ovata; labro margine subincrassato.

Hab. Lo-shan-kow; Shan-tung.

The sculpture of this species is of the same character as that of *A. badia*; but the form is different, and the base and outer lip are not white. It is also a much thinner shell and more delicately sculptured.

Genus Dunkeria, P. P. Carpenter.

1. *Dunkeria rufocincta*, A. Adams.

D. testa turrita, in medio tumidula, pallide fusca, cingulo rufo ad suturas ornata; anfractibus normalibus 9, longitudinaliter plicatis, transversim valde liratis, liris ad plicas nodulosis, plicis lirisque æquidistantibus regularibus; basi convexa, cingulo rufo ornata; apertura ovata; labio simplici, arcuato; labro margine acuto.

Hab. Shan-tung; Lian-tung.

This is a common species both in Shan-tung and Lian-tung, living in deep water. The longitudinal plicæ and transverse liræ decussate each other in a regular manner, giving the surface a reticulated appearance. The rufous band at the sutures is

sometimes obsolete or wanting, and the apex is often tinged with dark brown.

2. *Dunkeria candida*, A. Adams.

D. testa subrimata, turrita, in medio tumidula, tenui, alba, opaca, plicis longitudinalibus et liris elevatis transversis reticulata; anfractibus 8, convexis; suturis profundis; apertura ovata, antice subproducta; labio simplici; labro in medio rectiusculo, margine acuto.

Hab. Lo-shan-kow; Shan-tung (shell-sand).

This species is very similar in form to *D. rufocincta*, but it is pure white, and of finer and more regular sculpture.

Genus Chrysallida, P. P. Carpenter.

1. *Chrysallida casta*, A. Adams.

C. testa turrito-ovata, alba, tenui, semipellucida, subrimata; anfractibus normalibus 4, planiusculis, ad suturas vix angulatis, longitudinaliter plicatis, plicis flexuosis, angustatis, subdistantibus, interstitiis transversim valde striatis; anfractu ultimo ad peripheriam rotundato, plicis ad basin extendentibus; apertura ovata, antice producta et acuminata; plica parietali obsoleta, vix cælata; labro margine postice subangulato.

Hab. Kala-hai; Shan-tung.

A very elegant, pure-white, plicate species, semipellucid and of thin texture, with the aperture pointed and produced at the fore part.

2. *Chrysallida inconspicua*, A. Adams.

C. testa elongato-ovata, alba, nitida, solidula; anfractibus normalibus 3, planatis, longitudinaliter plicatis, plicis rectis, confertis, usque ad basin productis; suturis profundis; anfractu ultimo ad peripheriam rotundato; apertura ovata; plica parietali obliqua, mediana, parva; labro simplici.

Hab. Kala-hai; Shan-tung.

A small elongate-ovate species, with flat longitudinally plicate whorls.

3. *Chrysallida miranda*, A. Adams.

C. testa subturrito-ovata, alba, rimata, semiopaca, tenui; anfractibus normalibus 3, spiratis, planis, superne angulatis, longitudinaliter plicatis, transversim liratis; suturis canaliculatis; apertura ovata, antice producta; plica parietali obliqua, mediana; labro margine postice angulato.

Hab. Lo-shan-kow; Shan-tung.

A very pretty little species with spirate angular whorls, neatly reticulated with longitudinal plicæ and transverse liræ.

4. *Chrysallida pulchella*, A. Adams.

C. testa ovato-acuminata, rimata, subturrita, alba, tenui, semiopaca; anfractibus normalibus 4, planatis, superne ad suturas vix angulatis, longitudinaliter plicatis, plicis obliquis, tenuibus, subdistantibus, interstitiis transversim liratis; apertura ovata, antice subeffusa; labro margine postice subangulato.

Hab. Lo-shan-kow; Shan-tung.

A pretty, neatly-sculptured species, with the intersticcs between the slender plicæ of the whorls delicately lirate.

5. *Chrysallida tenuicula*, A. Adams.

C. testa parva, ovata, alba, tenui, semipellucida; anfractibus normalibus 2, longitudinaliter plicatis, plicis tenuibus, undatis, subdistantibus, interstitiis transversim striatis; anfractu ultimo ventricoso; apertura acuminato-ovata; plica parietali obliqua, inconspicua; labro simplici.

Hab. Hulu-Shan Bay; 4 fathoms.

A small semipellucid species, finely plicate, and with the last whorl ventricose.

6. *Chrysallida mundula*, A. Adams.

C. testa ovato-conica, alba, solida; anfractibus normalibus 3, planatis, longitudinaliter plicatis, plicis validis, confertis, interstitiis simplicibus; anfractu ultimo ad peripheriam rotundato, plicis ad basin productis; apertura acuminato-ovata; plica parietali dentiformi, mediana, transversa; labro margine subincrassato.

Hab. Lo-shan-kow; Shan-tung.

A short, ovately-conical, white, plicate species, with a peculiar dentiform parietal plica.

7. *Chrysallida costellata*, A. Adams.

C. testa pyramidato-ovata, alba, solida; anfractibus normalibus 4, planatis, subimbricatis, longitudinaliter costatis, costis rectis, validis, interstitiis simplicibus; anfractu ultimo ad peripheriam angulato, costis ad peripheriam abrupte desinentibus; basi lævi; apertura quadrato-ovata, antice producta et acuminata; plica parietali parva, superiore, transversa; labro in medio angulato.

Hab. Kala-hai; Shan-tung.

A small, ribbed, short, pyramidal species, with the outer lip angulate in the middle.

8. *Chrysallida gemma*, A. Adams.

C. testa oblongo-ovata, rimata, albida, solida; anfractibus normalibus 3, planatis, superne prope suturas longitudinaliter plicatis, inferne transversim valde liratis; suturis profundis; apertura acu-

minato-ovata; plica parietali transversa, valida, mediana; labro margine crenato.

Hab. Hulu-Shan Bay; 3 fathoms.

A species very much resembling *C. Mariella*, A. Ad., in style of sculpture, the whorls being plicate at the upper part, and transversely lirate at the lower part.

Genus Monoptygma, Gray.

Monoptygma cælata, A. Adams.

M. testa elongato-ovata; spira producta, acuminata, alba, solida, transversim valde lirata, liris distantibns, interstitiis pulcherrime lineis elevatis insculptis; anfractibus normalibus quatuor, convexiusculis; suturis canaliculatis; apertura oblonga; labio incrassato; plica parietali obliqua, mediana; labro margine crenato.

Hab. Mino-Sima; 63 fathoms.

This is a short, elongately ovate species, with channelled sutures. It is the only member of the *Monoptygma* type I have met with in the Sea of Japan, the other species I have recently described being found in the Gulfs of Pe-chili and Lian-tung.

Genus Menestho, Möller.

1. *Menestho exarata*, A. Adams.

M. testa acuminato-ovali, alba, solida, imperforata; anfractibus $5\frac{1}{2}$, planiusculis, transversim exaratis; apertura ovata, postice acuminata; labio subincrassato, simplici.

Hab. Hakodadi Bay; 16 fathoms.

This shell somewhat resembles an elevated grooved *Odostomia* without any plait. The axis is imperforate, and the shell is solid. If not a *Menestho*, possibly it may be considered a *Macrocheilus*.

2. *Menestho sculptilis*, A. Adams.

M. testa pyramidali-turrita, sordide alba, solidiuscula, imperforata; anfractibus $4\frac{1}{2}$, planiusculis, transversim sulcatis, sulcis concinne punctatis; apertura late ovata; labio simplici, antice vix effuso.

Hab. Mino-Sima; 63 fathoms.

This shell is something like a *Myonia* without a fold on the inner lip; it is of a pyramidately turreted form, and, were the axis perforated, would be regarded as an *Iole*.

Genus Amathis, A. Adams.

Testa subulata, lævis, polita; anfractibus simplicibus. Apertura

antice integra, dilatata, rotundata, postice acuta; labio superne plica obliqua valida instructo.

The shells composing this group will not arrange themselves under *Odostomia, Monoptygma, Myonia,* or any other genus of Pyramidellidæ. The following are the species already described, of which *A. virgo* may be considered the type :—

1. *Amathis virgo,* A. Adams.
   Myonia virgo, A. Adams (Ann. & Mag. Nat. Hist. 1860).
2. *Amathis producta,* A. Adams.
   Odostomia producta, A. Adams (Ann. & Mag. Nat. Hist. 1860).
3. *Amathis eburnea,* A. Adams.
   Menestho eburnea, A. Adams (Ann. & Mag. Nat. Hist. 1860).
4. *Amathis concinna,* A. Adams.
   Menestho concinna, A. Adams (Ann. & Mag. Nat. Hist. 1860).
5. *Amathis pellucida,* A. Adams.
   Menestho pellucida, A. Adams (Ann. & Mag. Nat. Hist. 1860).
6. *Amathis subula,* A. Adams.
   Menestho subula, A. Adams (Ann. & Mag. Nat. Hist. 1860).

Genus Lacuna, Turton.

1. *Lacuna* (*Epheria*) *decorata,* A. Adams.

L. testa oblongo-conoidea, rimato-umbilicata, tenui, transversim striata, fasciis tribus rufo-fuscis cincta, strigis rufo-fuscis distantibus longitudinalibus ornata; anfractibus $3\frac{1}{2}$, convexis, ultimo infra peripheriam obtuse angulato; apertura ovata, spiram vix æquante; rima umbilicali latiuscula.

Hab. Rifunsiri (on the shore).

This species is neither *L. carinata,* Gould (which I believe I have found in the Yellow Sea), nor *L. carinifera,* A. Adams, which I have described from Borneo. It differs from any figured in M. Philippi's Monograph of the genus. Besides the red-brown transverse bands, the shell is marked with distant red-brown longitudinal stripes.

2. *Lacuna inflata,* A. Adams.

L. testa oblongo-ovata, conoidea, umbilicata, tenui, lutescente; spira parva; anfractibus $4\frac{1}{2}$, convexis, striis incrementi longitudinalibus et lineolis elevatis creberrimis transversis decussatis; anfractu ultimo ventricoso, ad peripheriam rotundato; apertura patula, ovata; rima umbilicali angusta.

Hab. Rifunsiri (on the shore).

A thin ventricose yellowish shell with a short small spire, and

the whorls with the striæ of growth crossed by fine transverse elevated lines.

3. *Lacuna turrita*, A. Adams.

L. testa elongato-conoidea; spira elata, vix rimata, tenui, pallide fusca aut livida, apice violascente, basi fascia alba circumcincta; anfractibus 4, convexis, striis incrementi et lineis transversis decussatis; anfractu ultimo rotundato; apertura ovato-orbiculari, basi subproducta.

Hab. Rifunsiri (on the shore).

This is a somewhat turreted species, partaking of the general character of *L. crassior*, Walker; the umbilical region is white, there is no distinct umbilical fossa, and the last whorl is encircled with a white zone.

Genus Teinostoma, H. & A. Adams.

Teinostoma Carpenteri, A. Adams.

T. testa orbiculato-ovata, superne convexa, lactea, opaca, lævi, nitida; umbilico callo obtecto; anfractibus rapide crescentibus; apertura producta, antice acuminata; labro supra anfractum penultimum reflexo.

Hab. Gulf of Pe-chili; 7 fathoms.

The only shell at all resembling this is *Teinostoma amplectans*, Cpr., which, however, has a rounded aperture, whereas in this species it is anteriorly produced, as in the type, *T. politum*, A. Ad. The spire is entirely concealed by the last whorl, leaving only a minute pit at the apex, and the umbilical callus has a slight rimal fissure.

Genus Adeorbis, Searles Wood.

Adeorbis sinensis, A. Adams.

A. testa discoidali, spira prominula, alba, subporcellana, opaca, striis incrementi radiantibus et lineis spiralibus transversis decussata; anfractibus regulariter crescentibus, ultimo ad peripheriam obtuse angulato; umbilico patulo, perspectivo, margine carinato; apertura quadrato-orbiculari; labro mediocri.

Hab. Gulf of Pe-chili; 4 fathoms.

This is a rather large opake-white species, having very much the aspect of *Ethalia*; but there is no trace of an umbilical callus.

Genus Ethalia, H. & A. Adams.

1. *Ethalia atomaria*, A. Adams.

E. testa perparva, ovato-discoidali, alba, semidiaphana, radiatim

striata; spira planata; anfractibus rapide crescentibus; umbilico callo omnino obtecto; labro producto.

Hab. Kala-hai; Shan-tung.

This is a small white semitransparent shell, with the umbilical region entirely covered by a callus, and the outer lip produced.

2. *Ethalia perspicua*, A. Adams.

E. testa perparva, ovato-discoidali, alba, pellucida, striis incrementi conspicuis radiantibus ornata; spira planata; anfractibus rapide crescentibus; basi excavata; umbilico callo obtecto; labro producto.

Hab. Kala-hai; Shan-tung.

This species differs from *E. atomaria* in being pellucid, in the umbilical region being impressed, and in the conspicuous radiating lines of growth.

3. *Ethalia sobrina*, A. Adams.

E. testa parva, discoidali; spira planata; anfractu ultimo ad peripheriam obtuse angulato, callo semilunari umbilicum partim tegente; labro supra anfractum penultimum dilatato.

Hab. Tabu-Sima; 25 fathoms.

The species *E. amplectans*, Cpr., seems to agree most nearly with this, which has induced me to name it *E. sobrina*; it is, however, larger, and does not present the peculiarities in the callus mentioned in the Catalogue of Mazatlan Shells.

Genus Niso, Risso.

I may observe here that the only true species of *Niso* obtained by me in the Sea of Japan are the following:—

1. *Niso interrupta*, Sow.

Bonellia interrupta, Sow. Conch. Illustr.

Hab. Mino-Sima; 63 fathoms.

2. *Niso brunnea*, Sow.

Bonellia brunnea, Sow. Conch. Illustr.

Hab. Mino-Sima; 63 fathoms.

The *Bonellia imbricata* of Sowerby should form a distinct genus or subgenus, which may be thus characterized:—

Subgenus Volusia, A. Adams.

Testa turrita, axi perforata; anfractibus angulatis, transversim striatis. Apertura subquadrata, antice angulata et producta.

3. *Volusia imbricata*, Sow.

Bonellia imbricata, Sow. Conch. Illustr.
Niso imbricata, A. Adams, Proc. Zool. Soc.

Genus Conradia, A. Adams.

Conradia pulchella, A. Adams.

C. testa turbinata, rimato-umbilicata, sordide alba; anfractibus $3\frac{1}{2}$, convexis, supremis cancellatis, ultimo liris elevatis transversis septem instructo, superne ad suturam plicis radiantibus tenuibus ornato; basi liris concentricis, interstitiis concinne clathratis ornata; apertura circulari; labro margine simplici.

Hab. Tsu-Sima; 26 fathoms.

This is a small but very beautiful species of a genus which now numbers four species, all from the Sea of Japan. It is characterized by a delicate and elaborate style of sculpture.

Genus Vanesia, A. Adams.

Vanesia sulcatina, A. Adams.

V. testa subulato-conica, imperforata, tenui, sordide alba; apice eroso; anfractibus $5\frac{1}{2}$, convexiusculis, transversim sulcatis, sulcis exaratis, regularibus, subdistantibus; apertura ovato-acuminata, antice rotundata, producta, evasa; labro margine acuto.

Hab. Sunday Island, Coast of Manchuria; dredged from 20 fathoms.

This *Melania*-like species was obtained at the same time as the typical *V. trifasciata,* A. Adams, and resembles the group of Melaniidæ separated by my brother and myself from the genus *Vibex* under the name of *Juga.* I know of no other genus than *Vanesia* to which I can refer this marine likeness of *Melania.*

Genus Assiminia, Gray.

1. *Assiminia lutea,* A. Adams.

A. testa conoidali; spira conica, elata, epidermide tenui obtecta, pallide lutea; anfractibus $5\frac{1}{2}$, vix convexis, ultimo rotundato; apertura rotundato-ovata; regione umbilicali impressa; labio lato, effuso, superne incrassato.

Hab. Estuary of the Pei-ho.

2. *Assiminia cincta,* A. Adams.

A. testa globoso-conoidali, tenuicula, epidermide cornea obtecta, pallide fulva; spira brevi; anfractibus $4\frac{1}{2}$, convexis, ultimo fasciis transversis rufo-fuscis duabus cincto; apertura ovato-rotundata; labio lato, calloso, rufo tincto.

Hab. Estuary of stream near Great Wall.

Genus Stenothyra, Benson.

1. *Stenothyra glabra,* A. Adams.

S. testa oblonga, lævi, polita, semipellucida, aurantiaca; anfracti-

bus $4\frac{1}{2}$, convexis, supremis transversim obsolete striatis; suturis marginatis; peritremate continuo; anfractu ultimo ad aperturam concentrice striato.

Hab. Estuary of the Pei-ho.

2. *Stenothyra gibba*, A. Adams.

S. testa ovato-subtrigonali, compressa, semiopaca, pallide lutea, aurantio tincta; anfractibus $4\frac{1}{2}$, convexis, gibbosis, transversim striatis, striis obsolete punctatis.

Hab. Hulu-Shan, Gulf of Lian-tung; banks of rivulets.

Genus Tomichia, Benson.

1. *Tomichia Bensoni*, A. Adams.

T. testa rimata, epidermide rufo-fusca obtecta; spira elata, apice truncato; anfractibus 4, convexis, longitudinaliter strigosis; apertura ovato-elliptica; peristomate continuo, incrassato, extus subvaricoso.

Hab. Matsumai; Yesso.

2. *Tomichia japonica*, A. Adams.

T. testa rimata, epidermide olivacea obtecta; spira elata, apice truncato; anfractibus $3\frac{1}{2}$, convexiusculis, longitudinaliter strigosis, lineis virido-fuscis transversis ornatis; apertura ovato-elliptica; peristomate continuo, duplicato, interno recto, subacuto, externo valde incrassato.

Hab. Sado.

This species differs from *T. Bensoni* in being smaller and shorter, with the whorls less convex, and in the peritreme being double, the outer thickened and continued round the base.

Genus Cecina, A. Adams.

Tentacula lobiformia, plana, apicibus obtusis rotundatis. Oculi magni, nigri, non prominentes, sine pupillis, ad basin externam tentaculorum positi. Rostrum elongatum, cylindricum, annulatum. Pes brevis, oblongus, utrinque rotundatus.

Operculum ovatum, corneum, subspirale.

Testa imperforata, subcylindrica, epidermide olivacea obtecta; apice obtuso, eroso, non truncato; anfractibus planis, lævibus. Apertura ovata, verticali, antice rotundata, postice acuminata; peritremate continuo, vix incrassato; labro flexuoso, in medio subproducto.

Cecina manchurica, A. Adams.

C. testa subcylindrica, imperforata, epidermide olivacea obtecta; apice obtuso, eroso; anfractibus $4\frac{1}{2}$, planis, lævibus; suturis obliquis; apertura ovata; labio vix incrassato; labro in medio subdilatato.

Hab. Olga and Vladimir Bays, Manchuria (under damp logs near the sea).

The nearest approach I can find to this animal is *Truncatella*;

but the shell is not ribbed, and otherwise differs. In some respects it resembles *Geomelania*; but the shell, again, is smooth, and covered with an olive epidermis, like that of *Acicula* and *Tomichia*. The animal, however, certainly does not agree with *Tomichia*, which I have lately had an opportunity of observing in two Japanese species, nor with *Acicula*, if, indeed, this genus has been correctly described.

Dr. Pfeiffer, in his account of *Acicula*, observes, "Eyes on the upper part of the head; tentacula subulate;" and Dr. Gray says of the same genus, "Eyes on the back of the head, between and rather behind the base of the tentacula." The figure of *Acicula fusca*, copied from Hartmann by my brother and myself, in our 'Genera,' has subulate tentacles; and the same is the case with my figure of *Truncatella* in the same work, which was taken from a very lively individual which I had in my possession for some time. If I had only observed a stray example of *Cecina* in confinement, I should have thought the animal was sick, and that the tentacles were contracted; but I have seen hundreds crawling about the damp rotten logs, after I had turned over the latter for the purpose of watching the habits of these strange little mollusks. They resemble *Truncatella* in their mode of progression—fixing their long muzzle and dragging their shell and body close up to the fixed point, and then, fixing in turn their short foot, advancing the muzzle for another stride.

Shanghai, China,
Jan. 15, 1861.

XXXIV.—*Further Observations on the Structure of* Foraminifera, *and on the larger Fossilized Forms of Scinde, &c., including a new Genus and Species.* By H. J. Carter, Esq., F.R.S.*

[Plates XV. XVI. & XVII.]

Since my observations on the structure of *Operculina arabica* and my description of some of the larger forms of fossilized Foraminifera in Scinde were published, in 1852† and 1853‡ respectively, many valuable contributions have been made to our knowledge of the structure and species of the Foraminifera, amongst which those that I shall have to refer to most here are MM. le Vicomte d'Archiac and J. Haime's 'Monograph on the Nummulites§,' and Dr. Carpenter's 'Memoirs' on the structure

* Communicated by the Author, having been read before the Bombay Branch of the Royal Asiatic Society, April 11, 1861.—A brief summary of the results was given in the September Number of the 'Annals.'

† Ann. & Mag. Nat. Hist. ser. 2. vol. x. p. 161. ‡ *Ib.* vol. xi. p. 425.

§ Description des Animaux Foss. du Groupe Nummulitique de l'Inde. aris, 1853.